

CLAIMS

1. An analyte sampling element comprising:
a first region capable of quantitatively collecting and temporarily retaining an analyte; and
a second region on which a dynamic effect is acted from the outside to move said first region.
2. The analyte sampling element in accordance with claim 1, wherein said first region retains said analyte by capillarity.
3. The analyte sampling element in accordance with claim 1, wherein said dynamic effect is acted on by change in magnetic field.
4. The analyte sampling element in accordance with claim 1, wherein said first region releases said analyte in response to the movement of said second region.
5. The analyte sampling element in accordance with claim 1, further retaining a reagent a_1 for reacting with a substance contained in said analyte and/or a reagent b_1 for destroying a cell contained in said analyte.
6. The analyte sampling element in accordance with claim 5, wherein said reagent a_1 is an enzyme, an antigen, an antibody, a receptor or nucleic acid.
7. The analyte sampling element in accordance with claim 5, wherein said substance is protein, a hormone, an antibody, an enzyme, an antigen or nucleic acid.

8. The analyte sampling element in accordance with claim 5, wherein said reagent b_1 is inorganic salt or a surfactant.

9. The analyte sampling element in accordance with claim 5, wherein said cell is an erythrocyte, a leukocyte or a platelet.

10. The analyte sampling element in accordance with claim 5, wherein a component released from said cell destroyed by said reagent b_1 is protein, glycosylated protein, phosphorylated protein, a hormone, lipid, an antibody, an enzyme, an antigen, a receptor, an inhibitor, DNA or RNA.

11. An analyte treatment device comprising:

an analyte sampling element comprising a first region capable of quantitatively collecting and temporarily retaining an analyte and a second region on which a dynamic effect is acted from the outside to move said first region;

a reaction cell into which said sampling element is introduced;

a means for exerting the dynamic effect on said sampling element in said reaction cell; and

an optical measurement system for measuring a reaction in said reaction cell.

12. The analyte treatment device in accordance with claim 11, wherein said means for exerting the dynamic effect is a magnetic field changing device which exerts the dynamic effect on said sampling element by magnetic force.

13. The analyte treatment device in accordance with claim 11, wherein said optical measurement system is a light scattering spectrophotometer, a fluorospectrophotometer, an absorption spectrophotometer or an emission spectrophotometer.

14. An analyte treatment method comprising the steps of:

(a) quantitatively collecting and retaining an analyte in an analyte sampling element comprising a first region capable of quantitatively collecting and temporarily retaining the analyte and a second region on which a dynamic effect is acted from the outside to move said first region;

(b) introducing said sampling element retaining said analyte into a reaction system;

(c) moving said sampling element by the dynamic effect acted on from the outside of said reaction system to release said analyte from said sampling element and mixing said analyte in said reaction system by stirring.

15. The analyte treatment method in accordance with claim 14, wherein prior to the step (a), a reagent a_1 for reacting with a substance contained in said analyte and/or a reagent b_1 for destroying a cell contained in said analyte are retained in said sampling element.

16. The analyte treatment method in accordance with claim 15, wherein said reagent a_1 is an enzyme, an antigen, an antibody, a receptor or nucleic acid.

17. The analyte treatment method in accordance with

claim 15, wherein said substance is protein, a hormone, an antibody, an enzyme, an antigen or nucleic acid.

18. The analyte treatment method in accordance with claim 15, wherein said reagent b_1 is inorganic salt or a surfactant.

19. The analyte treatment method in accordance with claim 15, wherein said cell is an erythrocyte, a leukocyte or a platelet.

20. The analyte treatment method in accordance with claim 15, wherein a component released from said cell destroyed by said reagent b_1 is protein, glycosylated protein, phosphorylated protein, a hormone, lipid, an antibody, an enzyme, an antigen, a receptor, an inhibitor, DNA or RNA.

21. The analyte treatment method in accordance with claim 14, wherein said reaction system is a buffer, a solution containing a reagent a_2 for reacting with a substance contained in said analyte or a solution containing a reagent b_2 for destroying a cell contained in said analyte.

22. The analyte treatment method in accordance with claim 14, wherein in the step (c), said analyte is mixed in said reaction system by stirring, and at the same time, said reagent a_2 reacts with a substance contained in said analyte and/or said reagent b_2 destroys a cell contained in said analyte.